Mississippi Canyon 252

BIRD COLONY AERIAL PHOTOGRAPHY – 2011

Approval of the plan for Bird Colony Aerial Photography is for the purposes of obtaining data for the Natural Resource Damage Assessment. Each party reserves its right to produce its own independent interpretation and analysis of any data collected pursuant to this work plan.

This plan will be implemented consistent with existing trustee regulations and policies. All applicable state and federal permits must be obtained prior to conducting work.

The trustees have developed a preliminary conceptual model of the DWH release, potential pathways and routes of exposure, and potential receptors. This preliminary model has informed the trustees' decision to pursue the studies outlined in the work plan.

Kevin D. Reynolds — 11/16/2012

Department of the Interior Trustee Representative — Date

11/20/2012

Louisiana Trustee Representative — Date

INTRODUCTION

Birds will be in attendance at breeding colonies throughout the study area during the months of May and June. During this period, we will conduct two photographic surveys of seabird and coastal wader colonies in Louisiana, Alabama, Mississippi, and the Florida panhandle. Since the various species present at these colonies differ in their breeding phenology, we will visit all documented colonies in the study area twice, once during the May survey and once during the June survey. The field work described in this work plan is complete at the time of signature.

STUDY AREA

The study area is defined as the region between Atchafalaya, Louisiana and Apalachicola, Florida. We will revisit all colonies that were photographed or checked for attendance in 2010, regardless of whether they were found to have breeding activity at that time.

METHODS

Aircraft and Crew

Colony photography will be accomplished using a small fixed wing aircraft equipped with a belly port for photography. Survey crews will consist of two photographer/observers and a navigator/ data logger who will record summaries of observations and direct the pilot. Flight lines from aerial photography surveys carried out in May and June 2010 are shown in the figure below.

Colony Photography

Colony photographs taken in 2011 will provide a detailed record of bird attendance and behavior for eventual comparison with the equivalent 2010 data. We will revisit all colonies found to be active in 2010 and will systematically check the status of all the colony sites in Louisiana, Alabama, and Mississippi for which there are records from the

last (approximately) 30 years. Some of these colonies may no longer be attended. Active colonies are photographed in multiple frames using high resolution digital cameras equipped with telephoto lenses. These photographs are sufficiently detailed that even the postures and species of relatively small birds such as terns can usually be distinguished. Colony locations, altitude, trackline, and photographic frame numbers are recorded on a computer/GPS system. When engaged in colony photography, the aircraft will remain at an altitude of 600' ASL or more at all times to avoid any flushing behavior or disturbance on the part of nesting or roosting birds.

COORDINATION WITH MANAGERS OF CONSERVATION UNITS

Avoiding any disturbance to colonies is any extremely high priority. Disturbance can negatively affect the productivity of colonies, and photographic counts cannot be made if a colony is disturbed. We will not cross over NPS lands or USFWS refuges at altitudes less than 600'. If managers have concerns regarding disturbance, we propose that they place monitors who are in direct communication with the aircraft on the ground near the colonies. If monitors have *any* concerns about the behavior of the birds, they can contact the aircraft and immediately halt the photographic survey until such time as they indicate it is safe to approach the colony again. This technique has been used on the west coast for colonies that are in the jurisdiction of both NPS and USFWS, and has been found to be an effective way of monitoring and avoiding colony disturbance.

PERMITTING

The appropriate state and federal permits, including research permits for National Park Service lands and special use permits for U.S. Fish and Wildlife Service Refuge lands, will be secured prior to any field activities.

DATA HANDLING

MC 252 NRDA chain-of-custody procedures will be observed at all times for camera memory cards after a card is full or after the study completed pursuant to a protocol for transferring and uploading digital photos.

Copies of all data collected in accordance with this plan, including raw data, field notes, and photographs will be provided to the Louisiana Oil Spill Coordinator's Office (LOSCO) within 30 days of completion of data collection.

BUDGET

The total field costs for this Plan are $ 118,600. The Parties acknowledge that this budget is an estimate, and that actual costs may prove to be higher.